UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

24 May 2012

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

MEMORANDUM

SUBJECT: Science Review in Support of the Registration of Oxiphos, Containing 27.1% Mono- and Di-Potassium Salts of Phosphorus Acid and 14.0% Hydrogen Peroxide As Its Active Ingredients. Product Chemistry for the Unregistered Source of Phosphorus Acid, Tier I Toxicity and Waivers, and Tier I Non-Targets and Waivers.

Decision Number:	453457
DP Number:	397148
EPA File Symbol Number:	70299-EE
Chemical Class:	Biochemical
PC Code:	076416
CAS Number:	13598-36-2 (Phosphorus Acid)
Tolerance Exemptions:	40 CFR 180.1210 (Phosphorus Acid and its mono- and di-potassium salts)
MRID Numbers:	

FROM: Russell S. Jones, Ph.D., Senior Scientist /s/ 05/24/2012
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division (7511P)

TO: Menyon Adams, Regulatory Action Leader
Biochemical Pesticides Branch
Biopesticides & Pollution Prevention Division (7511P)

ACTION REQUESTED

On behalf of Biosafe Systems, LLC, D. Bishel requests registration of Oxiphos, which is intended for use as a Technical Grade Active Ingredient/Manufacturing Use Product (TGAI/MP). In support of this registration, the registrant has submitted data and information for product chemistry, rationales in support of acute toxicity and non-target organisms, a Confidential

Statement of Formula (CSF), dated 08/12/2012, and a rationale for the establishment of a 4-hr Re-Entry Interval (REI). The product contains 27.1% Mono- and Di-Potassium Salts of Phosphorus Acid (produced *in situ*) and 14.0% Hydrogen Peroxide (from one of three registered sources; EPA Reg Nos. [redacted]

RECOMMENDATIONS AND CONCLUSIONS

1a. The product chemistry submission for the unregistered TGAI, Phosphorus Acid, is **UNACCEPTABLE, but Upgradeable**. To upgrade to Acceptable the registrant must submit:

i. Information regarding Stability to Elevated Temperatures;
ii. UV/Vis Light Absorption; and
iii. the Method used to determine Water Solubility.

1b. The product chemistry submission for the EP, OxiPhos (EPA File No. 70299-EE) is **ACCEPTABLE.** No additional data are required.

2a. Tier I Toxicity data and rationales for the unregistered TGAI, Phosphorus Acid, are **ACCEPTABLE.** No additional data are required.

2b. Tier I Toxicity data and rationales for the new EP, OxiPhos (EPA File No. 70299-EE), are **ACCEPTABLE.** No additional data are required.

3. The rationales presented for the proposed 4-hr REI are **ACCEPTABLE.**

STUDY SUMMARIES

Product Chemistry

Product Identity and Composition (OCSPP 830.1100; MRID 485733-01 & -02):

Mono- and Di-Potassium Salts of Phosphorus Acid Technical: Phosphorus acid is prepared by the [redacted] Details of the process are found in MRID 48573301, pp. 29-31. The active ingredient is formed in situ via the reaction of Phosphorus Acid with Potassium Hydroxide to form Mono- and Di-Potassium Salts of Phosphorus Acid (MRID 48573302, pp. 33, 34).

Hydrogen Peroxide: Obtained from a registered source (EPA Reg Nos. [redacted].

OxiPhos (EPA File Symbol No. 70299-EE): Contains 27.1% Mono- and Di-Potassium Salts of Phosphorus Acid (produced *in situ*) and 14.0% Hydrogen Peroxide (from one of three registered source; EPA Reg Nos. [redacted] and 58.9% inert ingredients.

CLASSIFICATION: ACCEPTABLE

Description of the Materials Used to Produce the Product, Production Process, and the Formulation Process OCSPP 830.1600; 830.1620; and 830.1650; MRID 48573301 & -02):
The starting materials are as follows:

Mono- and Di-Potassium Salts of Phosphorus Acid Technical (MRID 48573301, pp. 28, 29):

Ingredients:
[redacted]

Phosphorus acid is prepared by the [redacted] Details of the process are found in MRID 48573301, pp. 29-31. The active ingredient is formed in situ via the reaction of Phosphorus Acid with Potassium Hydroxide to form Mono- and Di-Potassium Salts of Phosphorus Acid (MRID 48573302, pp. 33, 34).

Hydrogen Peroxide:

Obtained from a registered source (EPA Reg Nos. [redacted]

OxiPhos End-Use Product (MRID 48573302, pp. 31-33):

Ingredients:
Hydrogen peroxide [redacted]
Phosphorus Acid [redacted]
Mono- and Di-Potassium Salts of Phosphorus Acid (formed in situ)
[redacted]

[redacted] Supplier details are contained in MRID 48573302, pp. 31-33. A detailed description of each step in the manufacturing process is contained in MRID 48573302, pp. 33 & 34.

[redacted]

CLASSIFICATION: ACCEPTABLE

Discussion of the Formation of Impurities (OCSPP 830.1670; MRID 485733-01 & -02): [redacted]

CLASSIFICATION: ACCEPTABLE

Preliminary Analysis (OCSPP 830.1700; MRID 48573301):

Mono- and Di-Potassium Salts of Phosphorus Acid Technical (MRID 48573301, pp. 28, 29):

The registrant submitted five certificates of analysis for Phosphorus Acid from Microchem Specialties Corporation Ltd (Hong Kong, CHINA). Two were dated 04/24/2011; and one each were dated 04/26/2011, 04/28/2011, and 05/09/2011. The following nominal concentrations for each batch are presented below:

Table 1. Preliminary Analysis of Phosphorus Acid

Batch No.	Phosphorus Acid %
LX20110404	99.02
20110425	99.10
20110615	99.10
HT20110402	99.16
TT20110403	99.30

The other active ingredient in the end-use product, Hydrogen peroxide, is obtained from a registered source, and does not require a five batch analysis for this product.

OxiPhos End-Use Product (MRID 48573302):

Although not required for the EP, the registrant submitted a 5-batch analysis for Phosphorus acid and hydrogen peroxide concentration in the EP. The data are presented below (see MRID 48573302, p. 18); for details of the analysis see pp. 14-25.

Table 2. Preliminary Analysis of Active Ingredients in the End-use Product, OxiPhos

Batch No.	Phosphorus Acid %	Hydrogen Peroxide %
OX062920111	16.81	14.54
OX062920112	17.63	14.49
OX062920113	17.02	14.49
OX062920114	17.02	14.45
OX062920115	17.84	14.41

CLASSIFICATION: ACCEPTABLE

Enforcement Analytical Method (OCSPP 830.1800; MRID 485733-01 & -02): The registrant submitted a method entitled "Volumetric Determination of Phosphite" for the quantitation of the active ingredient, Mono- and Di-Potassium Salts of Phosphorus Acid. In this method, phosphite is oxidized to phosphate with iodine and the excess iodine back titrated with sodium thiosulfate. For complete details of the method see MRID 48573301, pp. 17-22.

The other active ingredient in the end-use product, Hydrogen peroxide, is obtained from a registered source, and does not require submission of an analytical method. However, the registrant did submit an analytical method entitled "Titrimetric Determination of Hydrogen Peroxide." See MRID48573302, pp. 20-25 for details.

CLASSIFICATION: ACCEPTABLE

Physical and Chemical Properties (OCSPP 830.6302 to 830.7950; MRID 48573302):

The physical and chemical properties of the unregistered source of Mono- and Di-Potassium Salts of Phosphorus Acid are all Not Applicable because the active ingredient is formed in situ as part of the integrated manufacturing process for the end-use product, OxiPhos (EPA File Symbol No. 70299-EE). In lieu of data on the Mono- and Di-Potassium Salts of Phosphorus Acid, data has been submitted for Phosphorus Acid, the TGAI (Table 3); the physical and chemical properties for the EP are listed in the Table 4 below:

Table 3. Physical and Chemical Properties for the Phosphorus Acid (precursor to Mono- and Di-potassium salts of Phosphorus acid).

Guideline (OCSPP Number)	Observation	Method
Color (830.6302)	White	Microchem Specialties MSDS
Physical State (830.6303)	Crystalline Solid	Microchem Specialties MSDS
Odor (830.6304)	Practically odorless	Microchem Specialties MSDS
Stability to Normal/Elevated temps., metals, and metal ions (830.6313)	Stable at room temperature in closed containers under normal storage and handling conditions. Hygroscopic; absorbs water and moisture from the air. **UNACCEPTABLE; information regarding stability at elevated temperatures is required.**	Microchem Specialties MSDS
Flammability (830.6315)	Not Applicable (NA); does not contain combustible liquids	-
Storage Stability (830.6317)	Study in progress	-
Miscibility (830.6319)	NA; not an emulsifiable liquid and is not diluted with petroleum solvents	-
Corrosion Characteristics (830.65320)	Study in progress	-
pH (830.7000)	1.42 (1% solution)	pH meter
UV/Visible Light Absorption (830.7050)	NA; photochemical degradation is not expected **UNACCEPTABLE; information is required**	-
Viscosity (830.7100)	NA; product is a solid	-
Melting Point/Melting Point Range (830.7200)	73 °C	Microchem Specialties MSDS
Boiling Point/Boiling Point Range (830.7220)	NA; product is a solid	-
Density/Relative Density/Bulk Density (830.7300)	1.6510 g/cm^3	Microchem Specialties MSDS
Particle Size, Fiber Length, and Diameter Distribution (830.7520)	NA; product is not insoluble or a fibrous substance	-
Partition Coefficient (n-octanol/water) (830.7550; 830.7560; 830.7570)	NA; product is not an organic chemical	-
Water Solubility: Column elution method; Shake Flask 830.7840)	310 g/100 mL	**Method not reported**
Vapor Pressure (8307950)	Data not available from supplier or published literature.	-

CLASSIFICATION: UNACCEPTABLE; to upgrade to Acceptable the registrant must provide information regarding Stability to Elevated Temperatures and UV/Vis Light Absorption; in addition, the Method for determining Water Solubility must be reported.

Table 4. Physical and Chemical Properties for the EP (OxiPhos; EPA File Symbol No. 70299-EE)

Guideline (OCSPP Number)	Observation	Method
Color (830.6302)	Not required (NR) for EP	-
Physical State (830.6303)	Liquid	Visual inspection
Odor (830.6304)	NR for EP	-
Stability to Normal/Elevated temps., metals, and metal ions (830.6313)	NR for EP	-
Flammability (830.6315)	Not applicable; contains a large amount of water	-
Storage Stability (830.6317)	Study in progress	
Miscibility (830.6319)	NA; not an emulsifiable liquid and not diluted with petroleum solids	-
Corrosion Characteristics (830.65320)	Study in progress	-
pH (830.7000)	5.32	pH meter
UV/Visible Light Absorption (830.7050)	NR for EP	-
Viscosity (830.7100)	10.0 cps at 25 °C	Flow cup method (Shell cup #2)
Melting Point/Melting Point Range (830.7200)	NR for EP	-
Boiling Point/Boiling Point Range (830.7220)	NR for EP	-
Density/Relative Density/Bulk Density (830.7300)	1.3 g/mL	CIPAC MT 3
Particle Size, Fiber Length, and Diameter Distribution (830.7520)	NR for EP	-
Partition Coefficient (n-octanol/water) (830.7550; 830.7560; 830.7570)	NR for EP	-
Water Solubility: Column elution method; Shake Flask 830.7840)	NR for EP	-
Vapor Pressure (8307950)	NR for EP	-

CLASSIFICATION: ACCEPTABLE

Tier I Toxicity

Phosphorus Acid: Tier I toxicity studies were not submitted for the Phosphorus Acid TGAI. In lieu of studies, the registrant submitted a rationale for each data requirement, supported in some instances, with previously submitted toxicity studies (MRID 48573303). Table 5 summarizes the existing toxicity profile for Phosphorus Acid TGAI that was cited by the registrant in lieu of conducting Guideline studies.

Table 5. Mammalian Toxicology Data Requirements for Phosphorus Acid TGAI

Study/OPPTS Guideline No.	Results	Toxicity Category/Description	MRID
Acute oral toxicity (rat) (870.1100)	LD_{50} = 3445 mg/kg[1] **ACCEPTABLE**	III	43905804
Acute dermal toxicity (rat) (870.1200)	LD_{50} > 2000 mg/kg[1] **ACCEPTABLE**	III	43905805
Acute inhalation toxicity (rat) (870.1300)	LD_{50} > 6.14 mg/L[1] **ACCEPTABLE**	IV	43905806
Primary eye irritation (rabbit) (870.2400)	Study waived: pH < 2.0[2] (Corrosive) **ACCEPTABLE**	I	48573303
Primary dermal irritation (rabbit) (870.2500)	Study Waived; pH < 2.0[2] (Corrosive)	I	48573303
Dermal sensitization (guinea pig) (870.2600)	No symptoms of sensitivity observed **ACCEPTABLE**	Not a sensitizer	43905809
Hypersensitivity incidents (885.3400)	No reports of hypersensitivity **ACCEPTABLE**	-	43905809
90-Day oral toxicity (870.3100)	Rationale submitted **ACCEPTABLE**	-[3]	48573303
90-Day dermal toxicity (870.3250)	Rationale submitted **ACCEPTABLE**	-[3]	48573303
90-Day inhalation toxicity (870.3465)	Rationale submitted **ACCEPTABLE**	-[3]	48573303
Mutagenicity (870.5100, 5300 and 5375)	No cytotoxicity or mutagenicity observed with S. typhimurium strains TA98, TA100, TA1535, & TA1538 **ACCEPTABLE**	Not a mutagen[4]	43905810
Developmental toxicity (870.3700)	Rationale submitted **ACCEPTABLE**	-[5]	48573303

[1] 45% potassium salts of Phosphorus acid
[2] MSDS for Phosphorus acid from Microchem Specialties Corporation, Ltd., Revision 3, dated 05/07/2010.
[3] See 90-day toxicity rationale summaries below
[4] See also summaries in MRID 48573303, pp. 22-25
[5] See Developmental toxicity rationale summary below

Tier I Toxicity Rationale Summaries for Phosphorus Acid

90-Day Oral Toxicity (OCSPP 870.3100): The Agency had previously granted an exemption from the requirements for tolerances for Phosphorus Acid and its Sodium and Ammonium salts in or on all food commodities when used as an agricultural fungicide and when applied to postharvest potatoes (40 CFR 180.212). Therefore, the Agency has no concerns for repeated oral exposure of humans to the active ingredient. Phosphorus and its potassium salts have been applied to crops and turf as fertilizers for many years and humans are already exposed to the active ingredient in this form in the diet. Application rates of Phosphorus acid and its potassium and ammonium salts as fertilizers exceed those proposed for use as agricultural fungicides (see detailed rationale and references in MRID 48573303, pp. 16, 17).

CLASSIFICATION: ACCEPTABLE

90-Day Dermal Toxicity (OCSPP 870.3250): Phosphorus and its Sodium and Ammonium salts, and products containing this active ingredient are not intended for purposeful or repeated contact to human skin. The proposed end-use product is intended for agricultural and horticultural purposes as a foliar spray and transplant dip. Dermal exposure is not expected to be a primary route of exposure and dermal exposure will be further mitigated with appropriate PPE worn by workers and applicators (see detailed rationale and references in MRID 48573303, p. 18).

CLASSIFICATION: ACCEPTABLE

90-Day Inhalation Toxicity (OCSPP 870.3250): The proposed end-use product is intended for agricultural and horticultural purposes as a foliar spray and transplant dip. Inhalation exposure is not expected to be a primary route of exposure and inhalation exposure will be further mitigated with appropriate PPE worn by workers and applicators. Repeated inhalation exposure is unlikely based on the proposed uses of the EP (see detailed rationale and references in MRID 48573303, p. 19).

CLASSIFICATION: ACCEPTABLE

Developmental Toxicity (OCSPP 870.3700): The Agency had previously granted an exemption from the requirements for tolerances for Phosphorus Acid and its Sodium and Ammonium salts in or on all food commodities when used as an agricultural fungicide and when applied to postharvest potatoes (40 CFR 180.212). Phosphorus is ubiquitous in the environment and Phosphorus Acid and its Sodium and Ammonium salts has been used as a agricultural fertilizer for many years. Application rates as an agricultural fungicide in the EP are less that the

application rates as a fertilizer. The potential exposure to women of childbearing age via use of the EP is unlikely to be greater than that which occurs from fertilizer use. Therefore, the Agency has no concerns for exposure to the active ingredient via oral, dermal, and inhalation routes of exposure in regard to teratogenicity (see detailed rationale and references in MRID 48573303, pp. 20, 21). The active ingredient is not a developmental toxicant.

CLASSIFICATION: ACCEPTABLE

OxiPhos (EPA File No. 70299-EE): Tier I Toxicity studies and other information specifically addressing the EP containing 27.1% Mono- and Di-Potassium Salts of Phosphorus Acid (17.7% Phosphorus Acid by wt) and 14.0% Hydrogen Peroxide were not submitted. In lieu of studies, the registrant referred to the Tier I toxicity data submitted in support of the unregistered Phosphorus Acid TGAI, and separately, data in information addressing the toxicity of hydrogen peroxide to support a rationale for not submitting acute toxicity studies (MRID 48573304). The rationale is based on the acute toxicity, obtained from the open technical literature, of various hydrogen peroxide solutions (ranging from 10% to 90%). These data are summarized below in Table 6.

Table 6. Mammalian Toxicology Data Requirements for Hydrogen Peroxide; data to Support the EP Containing 27.1% Mono- and Di-Potassium Salts of Phosphorus Acid and 14% Hydrogen Peroxide.

Study/OPPTS Guideline No.	Results	Toxicity Category/Description	MRID
Acute oral toxicity (rat) (870.1100)	10% H_2O_2 LD_{50} > 5000 mg/kg 70% H_2O_2 LD_{50} > 800 mg/kg **ACCEPTABLE**	III [1]	48573304
Acute dermal toxicity (rat) (870.1200)	70% H_2O_2 LD_{50} = 9200 mg/kg 90% H_2O_2 LD_{50} = 5000 mg/kg **ACCEPTABLE**	IV [1]	48573304
Acute inhalation toxicity (rat) (870.1300)	50% H_2O_2 LC_{50} > 0.17 mg/L **ACCEPTABLE**	III [2]	48573304
Primary eye irritation (rabbit) (870.2400)	Study waived: pH < 2.0[2] (Corrosive) **ACCEPTABLE**	I	48573304
Primary dermal irritation (rabbit) (870.2500)	Study Waived; pH < 2.0 (Corrosive)	I	48573304
Dermal sensitization (guinea pig) (870.2600)	Study Waived [3] **ACCEPTABLE**	Not a sensitizer	48573304
Hypersensitivity incidents (885.3400)	No reports of hypersensitivity **ACCEPTABLE**	-	48573304

[1] Expected Toxicity Category for the EP based on extrapolation; combined active ingredient content of OxiPhos (Potassium Salts of Phosphorus Acid + Hydrogen Peroxide) = 47.1%.

[2] Based on Tox IV Category for Phosphorus acid and dilution of EP prior to application.

[3] Based on Phosphorus acid categorized as "not a sensitizer," hydrogen peroxide is present in mammalian systems as a common metabolite, and is rapidly metabolized in mammalian systems

Tier I Non-Target Organisms

Phosphorus Acid: Tier I non-target organism studies were not submitted for the Phosphorus Acid TGAI. In lieu of studies, the registrant submitted a rationale for each data requirement, supported in some instances, with previously submitted toxicity studies (MRIDs 48573303 & 439058-12 to -17). Table 5 summarizes the existing toxicity profile for Phosphorus Acid TGAI that was cited by the registrant in lieu of conducting Guideline studies.

TABLE 7. Nontarget Organism Toxicity Requirements for Phosphorus Acid

Study/OPPTS Guideline No. /MRID No.	Results	Toxicity Category/Description	MRID
Avian acute oral toxicity *Colinus virginianus* (850.2100)	LD_{50} = 3445 mg/kg [1] NOEL = 1350 mg/kg	Practically non-toxic	43905812
Avian dietary toxicity *Colinus virginianus* (850.2200)	LD_{50} > 5620 mg/kg [1]	Practically non-toxic	43905813
Freshwater fish LC_{50} (*Oncorhynchus mykiss*) (850.1075)	96-hr LD_{50} > 96.4 ppm [2] NOEC = 96.4 ppm	Practically non-toxic	43905814
Aquatic invertebrate acute toxicity (*Daphnia magna*) (850.1010)	48-hr LD_{50} > 100 ppm [2]	Slightly toxic	43905816
Non-target plant studies (850.4000-4800, as applicable)	Rationale submitted **ACCEPTABLE**	No known toxicity at rates used [3]	48573303
Non-target insect testing (880.4350)	LD_{50} > 100 ppm [1]	Practically non-toxic	43905817

[1] 41% potassium salts of Phosphorus acid
[2] 65.26% potassium salts of Phosphorus acid
[3] See Non-target plant testing rationale summaries below

Tier I Non-Target Organism Rationale Summaries for Phosphorus Acid

Non-target Plant Testing – Seedling Emergence (OCSPP 870.4100) & Vegetative Vigor (OCSPP 870.4150):

There is no known plant toxicity at levels of Phosphorus Acid and its Mono- and Di- Potassium Salts applied in the EP, OxiPhos (EPA File No. 70299-EE). Phosphorus acid has been used for many years as an agricultural and horticultural fungal control agent. The proposed EP, OxiPhos, is intended for use in Downy Mildew and bacterial control on plants. Phosphorus acid is used in phosphite fertilizers, but is a poor source of Phosphorus for plant nutrition. It is typically used as a bactericide/fungicide and may have a stimulatory effect on plants (see MRID 48573303, pp. 33-59 and associated references).

According to the proposed label, the EP OxiPhos (EPA File No. 70299-EE), contains 27% Phosphorus Acid and its Mono- and Di- Potassium Salts, of which 17.7% is present as

Phosphorus Acid (equivalent to 1.93 lbs/gal Phosphorus acid). The maximum proposed label use rate for foliar applications is 42.3 fluid ounces of product (diluted in 30-100 gal water)/acre. This is equivalent to an application rate of 0.64 lbs Phosphorus acid/acre, which is more than an order of magnitude below the rates at which phosphorus (as phosphate) is applied to crops as a fertilizer (USDA/ERS, 2012).

The registrant requests a waiver from the requirement of non-target plant studies based on the ubiquity of phosphorus in the environment, its requirement as a macronutrient in plants, and that the product is intended for application to plant foliage to control pathogens; no phytotoxicity has been observed at the rates proposed on the draft product label.

CLASSIFICATION: ACCEPTABLE

CONCLUSIONS: No additional non-target organism data are required at this time for the EP, OxiPhos (EPA File No. 70299-EE). Hazard data submitted by the registrant above satisfy the data requirements for the unregistered TGAI, Phosphorus Acid. Non-target organism data submitted in support of the Hydrogen Peroxide TGAI (EPA Reg. Nos. 72372-1, 83968-2, and 335-235) are bridged to support the subject EP, OxiPhos.

Rationale in Support of a Proposed 4-Hr Reentry Interval (REI)

For the End-Use Product (EP), OxiPhos (EPA File No. 70299-EE), the registrant requests approval of a proposed 4-hour Re-Entry Interval (REI). The justification of the proposed REI is based upon the following:

1. OxiPhos contains 27.1% mono- and di-potassium salts of phosphorus acid (MDPP) as an active ingredient, which is lower than similarly labeled agricultural use products that exhibit the 4-hour REI on their labels [Crop-Phite (EPA Reg. No. 81309-1; 56.2% MDPP); Phos Trol (EPA Reg. No. 55146-83; 53.6% MDPP); and K Phite (EPA Reg No. 73806-1; 56% MDPP).

2. Phosphorus acid and its salts are common in the environment as a result of its use in fertilizers (MRID 48573303 and references therein). Phosphorous acid and its salts have low acute oral, dermal and inhalation toxicity, and are not a sensitizers nor a mutagens (see Table 5 above), but are in Tox Category I for eye and dermal irritation at concentrations found in the TGAI.

3. OxiPhos contains 14.0% Hydrogen Peroxide as an active ingredient. When applied in accordance with label use directions, the active ingredient dissipates upon contact with water

and oxygen, leaving no residues. Zero (0)-REIs have been granted to a similar Hydrogen Peroxide containing product containing a higher concentration of Hydrogen Peroxide [Zero Tol 2.0 (EPA Reg. No. 70299-12; 27.1%).

4. Hydrogen peroxide has low acute oral, dermal and inhalation toxicity, and is not a sensitizer nor a mutagen (see Table 6 above), but are in Tox Category I for eye and dermal irritation.

5. Upon dilution (in accordance with label directions) the levels of both active ingredients will be substantially reduced at application.

CONCLUSIONS: The submitted rationale supports the request for a 4-hr REI for OxiPhos (EPA File No. 70299-EE).

REFERENCE

USDA/Economic Research Service (ERS). 2012. Fertilizer Use and Price Data Set. May 4, 2012 Update. (Accessed 05/22/2012).
http://www.ers.usda.gov/data/fertilizeruse/

R. S. Jones, M. Adams, IHAD, BPB/BPPD Subject File
R. S. Jones: F.T. OPY, 703/308-5071: 05/24/2012